Given

Slab Width = 3.5 m

Thickness of the slab = 20 cm

$f = 1.5$

$S_c = 0.8 \, Kg/cm^2$

(1) For PCC

unit weight of cement concrete = $W = 2400 \, kg/m^3$

Spacing between Contraction Joints by using eqn

$$L_c = \frac{2 S_c}{W f} \times 10^4$$

$$= \frac{2 \times 0.8 \times 10^4}{2400 \times 1.5} = 4.44 \, m$$

ii) For RCC slab

Area of reinforcement

$$A_s = \frac{3.5}{0.3} \times \frac{\pi}{4} \times (1.0)^2$$

$$= 9.16 \, cm$$

Now spacing between Contraction Joints

$$L_c = \frac{200 \, S_c \, A_s}{b h W f}$$

$$= \frac{200 \times 1900 \times 9.16}{3.5 \times 20 \times 2900 \times 1.5}$$

$$= 10.2 \, m$$